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Wind shopping

By Michelle Thomas / First published in The Lawyer, 16 July 2007

China's growth of the wind farm and biomass energy sectors is seeing foreign investors take a keen interest, but the country's electricity purchasing system is keeping that interest from being converted into action.

External investment in Chinese wind farm projects is limited. The focus for overseas debt and equity is now on those businesses supplying equipment including components and parts to the wind farm industry and on the emerging biomass market.

China has one of the world's largest potential resources of wind energy and has accordingly seen tremendous growth in its wind power development. It is very likely that the target set by the eleventh Five-Year Plan requiring 5,000 MW installed capacity of wind power by 2010 will be met by the end of 2008.

Notwithstanding this, overseas investment in projects is limited principally because of the challenges posed by the electricity purchasing system. The National Development and Reform Commission (NDRC) initiated the 'Wind Power Concession Projects' in 2003. This programme aims to reduce the on-grid wind power tariff by building large scale wind farms. Wind power projects with installed capacity of no less than 50MW are approved by the NDRC, and those with less than 50MW are approved by local authorities.

Public bidding

One of the key concerns for foreign investors and developers is the public bidding process which creates a project structure which many find financially untenable. Whilst the government guarantees the power purchase agreement on concession projects which to some extent minimises the risks in recovering investment (the power grid company signs a long-term power purchase agreement with the wind farm developer and agrees to purchase electricity generated by the project at the on-grid price) it is the determination of this price via a public bidding process which creates the challenge.

Under the concession mechanism, wind projects are awarded to bidders who can deliver the lowest price, including the first 30,000 full load hours and net expenses for the wind farm. The past four rounds of concessions have caused investors and experts concern. The low prices won by successful bidders are considered too low to ensure that these projects are financially viable for foreign investors.

In addition, the grid is likely to experience problems keeping up with the rate of wind farm developments. According to Professor Dai Huizhu of the State Power Research Centre, grid connection is likely to create a bottleneck in wind farm development. The growth of wind farms with large installed capacity requires a corresponding development of the grid. The current speed of development of the grid is far behind the rate of development of wind farms.

Finally, only half of the scheduled implementing rules and regulations of the Renewable Energy Law 2006 have been issued by relevant government departments. Importantly, laws creating preferential tax treatment and financial policies are still in the process of being drafted and the timetable for their issuance is unclear.

It is not therefore surprising that external investment in project development is limited. This does not however mean that external investors are disinterested in the Chinese wind industry – far from it. It simply means that the focus of their investment has shifted to turbine and component supply.

Western dominance

China's wind turbine manufacturing industry has been developing for over 20 years. However, it is western companies which dominate the market, including Spain's Gamesa, Denmark's Vestas, Germany's Nordex and the USA's GE Wind. Most Chinese companies are licensed to manufacture equipment but only very few Chinese companies own the required core technologies for wind turbine manufacture.

Because of the 2005 NDRC notice which requires that at least 70 per cent of wind power equipment be procured in China, overseas turbine manufacturers have set up their own entities in China to supply the Chinese market.

However, with government support, domestic turbine manufacturers are growing at a fast rate. Wind turbines produced by local companies accounted for 22.7 per cent of the total supply in 2006. More recently, Dongfang Electric and Tianji Machinery Electric Industry set up a JV for blade manufacture. There is a proliferation of new entrants to the market and the key for overseas investors and funders is to find the right company with secure technology and manufacturing processes.

Many believe it is worth the search as it is only a matter of time before the home grown suppliers match their overseas competitors. Goldwind, China's largest domestic manufacturer of wind turbines (holding a 40 per cent share of the Chinese market) plans an A share listing and possible overseas listing to fund windpower projects in mainland China. Apparently, the Company has been in talks with Goldman Sachs since the end of 2005. Some of its domestic competitors also regard overseas listing and acquisitions as part of their strategy for long term development.

The acquisition earlier this year of NOI Rotortechnik GmbH, a large German blade manufacturer, by Zhongfu Lianzhong Composites, a subsidiary of CNBM, further underscores the rapid change in China's turbine supply market. We expect to see more growth and equity raising by the Chinese turbine manufacturers, not only on the Hong Kong market but also outside China. AIM continues to be attractive for Chinese companies looking to raise funds in this sector.

Biomass projects

We are also beginning to see some external funding interest in biomass projects in China. The biomass industry is diverse (including straw, animal waste, wood waste and crop residue) and not without its own challenges but due to improved policy support the biomass industry experienced a record year of development in 2006 and there is no reason why this should not continue throughout 2007. The policy support includes the following:

- An NDRC target for biomass derived energy of 5,500MW by 2010 and 30,000MW by 2020.
- The eleventh Five-Year Plan which explicitly requires China to accelerate the development of biomass to electricity, especially biomass to electricity from straw, waste and landfill. China will also expand the production capability of fuel ethanol and bio-fuel.
- The 2006 Renewable Energy Law which requires the surcharge arising from the purchase of electricity generated by using renewable energies at a fixed price determined by the price department of the State Council (rather than a price fixed through public bidding) to be apportioned by adjusting the selling price of the electricity.
- The NDRC Tentative Rules on Management of Pricing and Cost Sharing of Renewable Energy Power which allows the government to determine the on-grid electricity price according to the standard electricity price of the respective province plus a subsidy equal to RMBO.25/KWh. New projects can enjoy subsidies for the first 15 years.

Compared with the pricing mechanism for wind power, the pricing mechanism for biomass electricity is potentially more attractive for investors. While increased external investment in biomass projects is expected, investment is likely to be curtailed simply because those challenges experienced by most Western project developers are only accentuated in China. The need for a continuous supply of feedstock, the high cost of transportation, the difficulties in storage and the need to install proven technologies pose challenges for any biomass developer and investor. The key to the success of Chinese projects is in developing a system which allows the developer to efficiently access numerous supply chains over large geographical areas. A number are managing this challenge and we may very well see a number of IPOs of biomass to energy companies over the next 12 months.

Despite pressure from other overseas governments to refrain from committing to a global renewable energy policy and carbon emissions cap and trade system, China appears to be committed to developing a sustainable renewable energy industry. The opportunities for funders and investors, and their advisors, are immense but an understanding of the market and its likely course is important.

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